Russian Journal of General Chemistry 2013 vol.83 N7, pages 1324-1329

Diphosphonioiminobornane diperchlorate: Electrosynthesis, crystal structure, and hydrolysis

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Abstract

On of the products of electrochemical phosphorylation of camphene was 2-(C-methy--C-trialkylphosphonio) methyleneimino-10-trialkylphosphoniomethyl) bornane diperhlorates. A mechanism of their formation was suggested consisting in the rearrangement of the intermediate camphenylphosphonium dication followed by selective addition of acetonitrile and a second trialkylphosphine molecules. The diperhlorate hydrolysis was found to lead to the synthesis of 2-acetamido-10-trialkylphosphoniobornane perchlorates. The 2-(C-methyl-C-tripropylphosphonio)methyleneimino-10-tripropylphosphoniomethyl)bornane and 2-acetamidoy--10-tripropylphosphoniobornane structures were established by the X-ray diffraction study. © 2013 Pleiades Publishing, Ltd.

http://dx.doi.org/10.1134/S1070363213070049